Claims

[c1]   1.A method of determining a merging bit, the method comprising:

(a)appending one bit to a fourteen-bit set of data output from an eight-to-fourteen modulator to make a fifteen-bit set of data;

(b)dividing the fifteen-bit set of data into five local digital-sum-values of three bits;

(c)adding the five local digital-sum-values to an initial digital-sum-value to generate a sub-digital-sum-value; and

(d)generating the merging bit according to the sub-digital-sum-value and a predetermined value.

[c2]   2.The method of claim 1 further comprising:
generating the initial digital-sum-value by adding the local digital-sum-value corresponding to the former merging bit to the former sub-digital-sum-value.

[c3]   3.The method of claim 1 wherein step (b) further comprises:
corresponding the three bits and an initial non-return-to-zero of the three bits to a first table for generating the local digital-sum-value.

[c4]   4.The method of claim 1 wherein step (d) further comprises:

prises:

corresponding the sub-digital-sum-value and the predetermined value to a second table for generating the merging bit.

[c5]   5. A device for carrying out the method of claim 1.